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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,649	11/24/2003	Christian Weis	2001P80072WOUS	1173

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EXAMINER

JOHNSON, MATTHEW A

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/718,649

Applicant(s)

WEIS, CHRISTIAN

Examiner

Matthew Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8,9 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8,9 and 15-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

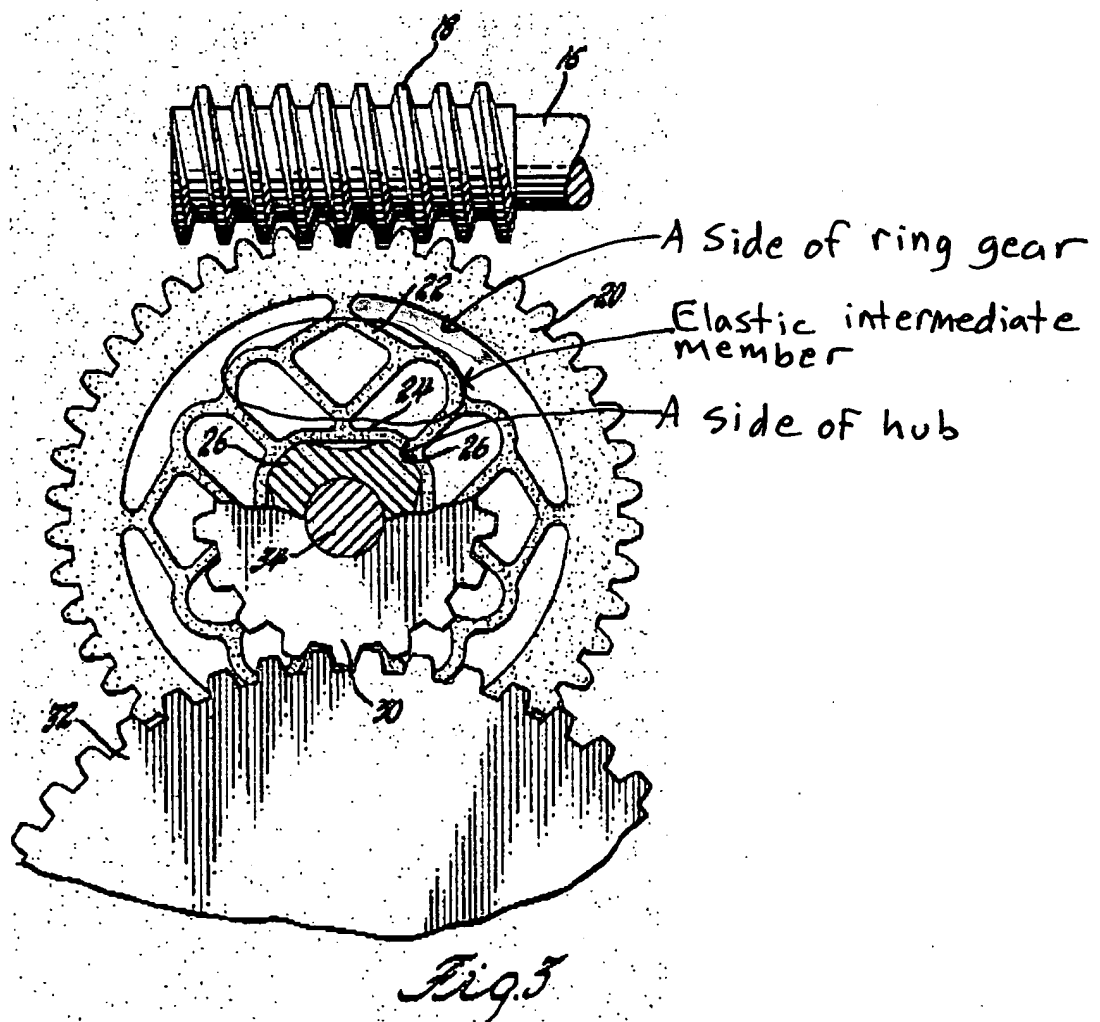
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Baier (US Pat. 3,406,583).

Baier (US Pat. 3,406,583) discloses (Figures 2 and 3), an electronically driven device (the "locking" device is an intended use recitation, therefor the actuator of Baier must only be capable of performing said function) for electronically engaging and disengaging an element of a motor vehicle, the device including actuating means having a motor (col. 2/line 21) and a worm gear (18), said motor arranged to drive said worm gear and generate kinetic energy resulting in application of a torque to said device, said device comprising a gear wheel comprising a gearing ring (20), a hub (26,30) and an elastic intermediate element (22), said gear wheel, gear ring (20) and hub (26,30) being joined together by said elastic intermediate element (22) and said gear wheel and hub (26,30) being further joined together via a material to material bond (frictional adhesion), said gear ring (20) and hub (26,30) each comprising circumferential teeth, said gear ring (20) teeth being arranged to engage said worm gear (18) such that force from said worm gear is imparted upon said gear ring (20), wherein the gear wheel comprises a

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central axis (34) upon which said gear ring (20), hub (26,30) and intermediate element (22) are arranged such that the intermediate element (22) is sandwiched between sides of the gear ring (20) and hub (26,30) (See Figure 3 below), and a control disk (32) comprising circumferential gear arranged to interact with said hub gear such that rotation force may be exchanged between said control disk (32) and hub (26,30), said control disk mechanically linked to said element such that said peak torque is absorbed by said intermediate element (22).



***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 8, 9, 15, 16, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franz (US Pat. 6,445,081) in view of Baier (US Pat. 3,406,583)

Franz (US Pat. 6,445,081) discloses (Figures 1 and 2), an apparatus comprising, an actuating device (Figure 1) having a motor (1) and a worm gear (3); a control disc (4) having a plurality of tracks (6,7) located on opposite sides of the control disc (4); two arms (Figure 1) engaging said plurality of tracks (6,7), having extensions (11) extending into said plurality of tracks (6, 7) effecting a locking and releasing of a movable element (10,12) (distal ends of said levers located away from ends thereof having the extensions).

Franz (US Pat. 6,445,081) does not disclose a wheel comprising a gear ring, a hub, and an elastic intermediate member located between said actuating device and said control disc.

Baier (US Pat. 3,406,583) teaches (Figures 2 and 3), an electronically driven device for electronically engaging and disengaging an element of a motor vehicle, the device including actuating means having a motor (col. 2/line 21) and a worm gear (18),

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said motor arranged to drive said worm gear and generate kinetic energy resulting in application of a torque to said device, said device comprising a gear wheel comprising a gearing ring (20), a hub (26,30) and an elastic intermediate element (22), said gear wheel, gear ring (20) and hub (26,30) being joined together by said elastic intermediate element (22) and said gear wheel and hub (26,30) being further joined together via a material to material bond (frictional adhesion), said gear ring (20) and hub (26,30) each comprising circumferential teeth, said gear ring (20) teeth being arranged to engage said worm gear (18) such that force from said worm gear is imparted upon said gear ring (20), and a control disk (32) comprising circumferential gear arranged to interact with said hub gear such that rotation force may be exchanged between said control disk (32) and hub (26,30), said control disk mechanically linked to said element such that said torque is absorbed by said intermediate element (22), for the purpose of driving a vehicle element while preventing motor damage or damage to the drive mechanisms of the arrangement, as suggested by Baier (col. 2/lines 25-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Franz in view of the teachings of Becker et al. to provide a wheel comprising a gear ring, a hub, and an elastic intermediate member arrangement located between an actuating device and a control disk, so as to prevent motor damage or damage to the drive mechanisms of the mechanical arrangement, as suggested by Baier (col. 2/lines 25-32).

4. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franz (USP 6,445,081) in view of Baier (USP 3,406,583) further in view of Koerwer et al (USP 6,371,536).

Franz in view of Baier disclose all of the claimed subject matter as described above.

While Franz does indeed disclose a drive device comprising two arms mechanically linked via a single rotatable shaft and further discloses that the two arms bear against the cam surface (6), he does not explicitly disclose two arms spring biased to a control disk.

Koerwer et al. teaches an arm (12) spring biased to a control disk (15) in order to couple and pretension the arm (12) to the control disk (15). (C3 L62-65)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ the spring of Koerwer in the device of Franz in order to couple and pretension the arms to the control disk.

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz (USP 6,445,081) in view of Baier (USP 3,406,583) further in view of Ginsberg (USP 3,446,085). The reference combination set forth above discloses the basis apparatus but does not disclose first and second stop member.

However, Ginsberg teaches (Figure 1) an apparatus comprising a control disc 40 having a first stop member (43) which engages a second stop member (38a,38b) so as to halt the movement of said control disc.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Franz in view of the teachings of Ginsberg to provide first and second stop members so as to limit the amount of rotation and provide halt positions of said control disc so as to provide rest positions when said levers are actuated to desired positions; avoiding the continued locking and releasing with uninterrupted drive from said actuating device (col. 3/lines 20-35) as well as to provide an economically viable worm gear stop assembly that produces a high standard of quality, performance, precision, and protection, as suggested by Ginsberg (col. 1/lines 49-67).

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew Johnson whose telephone number is 571-272-6917. The examiner can normally be reached on Monday - Friday 8:30a.m. - 5:00p.m. EST.

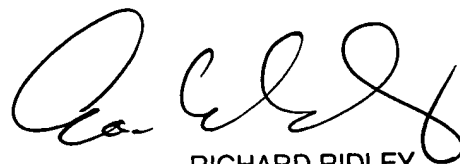
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAJ

MAJ 11/17/2006

A handwritten signature in black ink, appearing to read 'Richard Ridley', is written over a horizontal line.

RICHARD RIDLEY  
SUPERVISORY PATENT EXAMINER